

**DROUGHT CONTINGENCY PLAN
FOR THE
BRAZOSPORT WATER AUTHORITY**

OCTOBER 25, 2011

Section I: Declaration of Policy, Purpose, and Intent

In order to conserve the available water supply and/or to protect the integrity of water supply facilities, with particular regard for domestic water use, sanitation, and fire protection, and to protect and preserve public health, welfare, and safety and minimize the adverse impacts of water supply shortage or other water supply emergency conditions, the Brazosport Water Authority adopts the following Drought Contingency Plan (hereafter referred to as The Plan).

Section II: Public Involvement

Opportunity for water customers to provide input into the preparation of The Plan was provided by The Brazosport Water Authority. The meetings were held at The Brazosport Water Authority conference room on July 26, 2011 where the need for The Plan was explained and input from these representatives was requested by no later than July 26, 2011. Brazosport Water Authority has received input from personnel of numerous BWA customers.

Section III: Water Customer Education

The Brazosport Water Authority will periodically provide water customers with information about The Plan. This will include information about the conditions under which each stage of The Plan is to be initiated or terminated and the drought response measures to be implemented in each stage. This information will be provided by means of customer meetings, press releases, mailings, faxes, and telephones messages.

Section IV: Coordination with Regional Water Planning Groups

The water service area of the Brazosport Water Authority is located within the Houston Regional Water Planning Group H. The Brazosport Water Authority has provided a copy of The Plan to the Houston Regional Water Planning Group H in Conroe, Texas.

Section V: Authorization

The General Manager or his/her designee, is hereby authorized and directed to implement the applicable provisions of this Plan upon determination that such implementation is necessary to protect public health, safety and welfare. The General Manager, or his/her designee, shall have the authority to initiate or terminate drought or other water supply emergency response measures as described in this Plan. As utilization of an alternative water source, Brazosport Water Authority Board of Directors has granted approval to the General Manager for the purchase of a water release from the Brazos River Authority in the event that any stage is implemented or to avoid the implementation of a stage.

Section VI: Application

The provisions of this Plan shall apply to all customers utilizing water provided by the Brazosport Water Authority. The terms person and customer as used in The Plan include individuals, corporations, partnerships, associations, and all other legal entities.

Section VII: Triggering Criteria for Initiation and Termination of Drought Response Stages

The General Manager, or his/her designee, shall monitor water supply and/or demand conditions on a daily basis and shall determine when conditions warrant initiation or termination of each stage of The Plan. Customer notification of the initiation or termination of drought response stages will be made by customer meetings, press release, email, fax, or telephone.

The triggering criteria described below are based on an analysis of the saline content of Brazos River water and the vulnerability of this water source under drought of record conditions.

Stage 1 – Mild Water Shortage Conditions

Requirements for initiation – The Brazosport Water Authority will recognize mild water shortage conditions if any of the following exist:

- When the salinity of Brazos River water at the Brazoria Reservoir (primary reservoir) intake is >200 mg/L.
- When total potable water demand equals or exceeds 140% of contracted quantity for any 24 hour period.

- When supplemental water purchases are required.
- When TCEQ suspends water rights on the lower Brazos Basin of junior water rights holders for 1980 and up.
- When river level at Rosharon station falls below 6 feet for 3 consecutive days.

Requirements for termination – Stage 1 of The Plan may be rescinded when the conditions listed as triggering events have ceased to exist for a period of five (5) consecutive days. The Brazosport Water Authority will notify its customers and the media of the termination of Stage 1 in the same manner as the notification shown on page 2 section VII of this plan.

Stage 2 – Moderate Water Shortage Conditions

Requirements for initiation – The Brazosport Water Authority will recognize moderate water shortage conditions if any of the following exist:

- When the salinity of the Brazos River is >250 mg/L at the Harris Reservoir (secondary reservoir) intake.
- When total water demand equals or exceeds 125% of contract quantity for any 24 hour period.
- When a second supplemental water purchase is required.
- When TCEQ suspends water rights on the lower Brazos Basin of junior water rights holders for 1960 and up.
- When river level at Rosharon station falls below 3 feet for 3 consecutive days.

Requirements for termination – Stage 2 of The Plan may be rescinded when the conditions listed as triggering events have ceased to exist for a period of five (5) consecutive days. Upon termination of Stage 2, Stage 1 becomes operative. The Brazosport Water Authority will notify its customers and the media of the termination of Stage 2 in the same manner as the notification shown on page 2 section VII of this plan.

Stage 3 – Severe Water Shortage Conditions

Requirements for initiation – The Brazosport Water Authority will recognize severe water shortage conditions if any of the following exist:

- When the saline content of the Brazos River water is >300 mg/L and unsuitable for potable use at the Harris Reservoir intake.
- When total water demand equals or exceeds 105% of contracted quantity for any 24 hour period.
- When a third supplemental water purchase is required.
- When TCEQ suspends water rights on the lower Brazos Basin of junior water rights holders under 1960.
- When river level at Rosharon station falls below 1.75 feet for 3 consecutive days.

Requirements for termination – Stage 3 of The Plan may be rescinded when the conditions listed as triggering events have ceased to exist for a period of seven (7) consecutive days. Upon termination of Stage 3, Stage 2 becomes operative. The Brazosport Water Authority will notify its customers and the media of the termination of Stage 3 in the same manner as the notification shown on page 2 section VII of this plan.

Stage 4 – Major Water Shortage Conditions

Requirements for initiation – The Brazosport Water Authority will recognize major water shortage conditions if any of the following exist:

- When a fourth supplemental water purchase is required.
- When TCEQ requires additional restrictions or reduction of daily water delivery than stated in Stage 3 of this plan.
- When river levels at Rosharon station falls below 1.4 feet for 3 consecutive days.
- When storage capacity of the Brazos River Basin drops below 55%.

Requirements for termination – Stage 4 of The Plan may be rescinded when the conditions listed as triggering events have ceased to exist for a period of seven (7) consecutive days. Upon termination of Stage 4, Stage 3 becomes operative. The Brazosport Water Authority will notify its customers and the media of the termination of Stage 4 in the same manner as the notification shown on page 2 section VII of this plan.

Stage 5 – Extreme Water Shortage Conditions

Requirements for initiation – The Brazosport Water Authority will recognize extreme water shortage conditions if any of the following exist:

- When a fifth supplemental water purchase is required.
- When TCEQ requires additional restrictions and reduction of daily water delivery than stated in Stage 4 of this plan.
- When river level of The Brazos River at The Rosharon station falls below 1 foot.
- When Storage Capacity of the Brazos River Basin drops below 50%.

Requirements for termination – Stage 5 of The Plan may be rescinded when the conditions listed as triggering events have ceased to exist for a period of seven (7) consecutive days. Upon termination of Stage 5, Stage 4 becomes operative. The Brazosport Water Authority will notify its customers and the media of the termination of Stage 5 in the same manner as the notification shown on page 2 section VII of this plan.

Emergency Water Shortage Conditions

Requirements for initiation – The Brazosport Water Authority will recognize emergency water shortage conditions if any of the following exist:

- When a major water line breaks, or pump, power and other system failures occur, which cause loss of capability to provide water service.
- When there is natural or man-made contamination of the water supply source.
- When there is failure of water delivery from The Brazosport Water Authority's storage and transfer source.

Requirements for termination – The implementation of emergency water shortage conditions may be rescinded when the conditions listed as triggering events have ceased to exist for a period of three (3) consecutive days. The Brazosport Water Authority will notify its customers and the media of the termination of the implementation of emergency water shortage conditions in the same manner as the notification shown on page 2 section VII of this plan.

Section VIII: Drought Response Stages

The General Manager, or his/her designee, shall monitor water supply and/or demand conditions and, in accordance with the triggering criteria set forth in Section VII, shall determine that mild, moderate, or severe water shortage conditions exist or that an emergency condition exists and shall implement the following actions. All customer daily demand shall be demanded utilizing “Pro Rata Allocation”.

Stage 1 – Mild Water Shortage Conditions

1. Goal:

Achieve 120% or less of daily contracted potable water demand.

2. Supply Management Measures:

The Brazosport Water Authority will implement water conservation and minimize any non-essential water use within The Plant.

3. Demand Management Measures:

(a) The General Manager, or his/her designee(s), will contact customers informing them of procedures that will be implemented to reduce water usage.

(b) Information will be provided the news media, as it becomes available.

Stage 2 – Moderate Water Shortage Conditions

1. Goal:

Achieve 100% or less of daily contracted potable water demand.

2. Supply Management Measures:

The Brazosport Water Authority will limit all non-essential water use within The Plant.

3. Demand Management Measures:

The General Manager, or his/her designee(s), will:

(a) Contact customers informing them of procedures that will be implemented to reduce water usage.

(b) Information to be provided to news media as it becomes available.

Stage 3 – Severe Water Shortage Conditions

1. Goal:

Achieve 90% or less of daily contracted potable water demand.

2. Supply Management Measures:

The Brazosport Water Authority will stop all non-essential water use within The Plant.

3. Demand Management Measures:

The General Manager, or his/her designee(s), will:

(a) Contact customers informing them of procedures that will be implemented to reduce water usage. The Plan will take into consideration the customers ability to satisfy its needs from subsurface sources and the ability of customers to assist other customers through use of the pipelines existing within the system.

(b) Information to be provided to news media as it becomes available.

Stage 4 – Major Water Shortage Conditions

1. Goal

Achieve 85% or less of daily contracted potable water demand.

2. Supply Management Measures:

The Brazosport Water Authority will continue to uphold supply management measures from Stage 3.

3. Demand Management Measures:

The General Manager, or his/her designee(s), will:

(a) Contact customers informing them of procedures that will be implemented to reduce water usage. The Plan will take into consideration the customers ability to satisfy its needs from subsurface sources and the ability of customers to assist other customers through use of the pipelines existing within the system.

(b) Information to be provided to news media as it becomes available.

Stage 5 – Extreme Water Shortage Conditions

1. Goal

Achieve 80% or less of daily contracted potable water demand.

2. Supply Management Measures:

The Brazosport Water Authority will continue to uphold supply management measures from Stage 3.

3. Demand Management Measures:

The General Manager, or his/her designee(s), will:

- (a) Contact customers informing them of procedures that will be implemented to reduce water usage. The Plan will take into consideration the customers ability to satisfy its needs from subsurface sources and the ability of customers to assist other customers through use of the pipelines existing within the system.
- (b) Information to be provided to news media as it becomes available.

Emergency Water Shortage Conditions

Whenever emergency water shortage conditions exist as defined in Section VII of The Plan, the General Manager shall:

- 1. Assess the severity of the problem and identify the actions needed and time required to solve the problem.(Initiate emergency response procedures)
- 2. Inform the utility director or other responsible official of each customer by telephone or fax.
- 3. Notify appropriate regulatory officials.
- 4. Undertake necessary actions, including repairs as needed.
- 5. Notify customers of plan to restart water delivery.
- 6. Prepare a post-event assessment report on the incident and critique of emergency response procedures and actions.

Section IX: Pro Rata Water Allocation

In the event that the triggering criteria specified in Section VII of The Plan for Stage 3 – Severe Water Shortage Conditions have been met, the General Manager is hereby authorized to initiate allocation of water supplies on a pro rata basis in accordance with Texas Water Code Section 11.039 and according to the following water allocation policies and procedures:

- (a) A customer's monthly allocation shall be a percentage of the customer's water usage baseline. The percentage will be set by resolution of the Brazosport Water Authority Board of Directors based on the General Manager's assessment of the severity of the water shortage condition and the need to curtail water diversions and/or deliveries and may be adjusted periodically by resolution of the Brazosport Water Authority Board of Directors as conditions warrant. Once pro rata allocation is in effect, water diversions by or deliveries to each customer shall be limited to the allocation established for each month.
- (b) A monthly water usage allocation shall be established by the General Manager, or his/her designee, for each customer. The customer's water usage baseline will be computed on the average water usage by month for the most recent 5 year period. If the water customer's billing history is less than five (5) years, the monthly average for the period for which there is a record shall be used for any monthly period for which no billing history exists.
- (c) The General Manager shall provide notice, by certified mail, to each customer informing them of their monthly water usage allocations and shall notify the news media and the executive director of the Texas Commission on Environmental Quality upon initiation of pro rata water allocation.
- (d) Upon request of the customer or at the initiative of the General Manager, the allocation may be reduced or increased if, (1) the designated period does not accurately reflect the customer's normal water usage; (2) the customer agrees to transfer part of its allocation to another customer; or (3) other objective evidence demonstrates that the designated allocation is inaccurate under present conditions. A customer may appeal an allocation established hereunder to the Board of Directors of the Brazosport Water Authority.
- (e) Usage totals will be monitored through Brazosport Water Authority SCADA System.

- (f) In the event that any water contracts are entered into or renewed with Brazosport Water Authority after adoption of The Plan, including contract extensions, the contracts shall include a provision stating that in the case of a shortage of water resulting from drought, the water to be distributed shall be divided in accordance with Texas Water Code, §11.039.

Section X: Enforcement

During any period when pro rata allocation of available water supplies is in effect, customers shall be subject to discontinuation of service for exceeding pro rata allocation.

- (a) Each customer's daily usage shall be monitored and totaled via SCADA System and stored on computer.
- (b) Customers in excess of 5% over daily allocation will have water source discontinued if they exceed their contracted or allocated amount, whichever is less, until the following day. Discontinuance of service will be accomplished by Brazosport Water Authority's PLC coding, control set point value and control valve. Operator will be notified via computer alarming system.

Section XI: Variances

The General Manager, or his/her designee, may, in writing, grant a temporary variance to the pro rata water allocation policies provided by this Plan if it is determined that failure to grant such variance would cause an emergency condition adversely affecting the public health, welfare, or safety and if one or more of the following conditions are met:

- (a) Compliance with this Plan cannot be technically accomplished during the duration of the water supply shortage or other condition for which The Plan is in effect.
- (b) Alternative methods can be implemented which will achieve the same level of reduction in water use.

Persons requesting an exemption from the provisions of this Plan shall file a petition for variance with the General Manager within five (5) days after pro rata allocation has been invoked. All petitions for variances shall be reviewed by the Board of Directors, and shall include the following:

- (a) Name and address of the petitioner(s).
- (b) Detailed statement with supporting data and information as to how the pro rata allocation of water under the policies and procedures established in The Plan adversely affects the petitioner or what damage or harm will occur to the petitioner or others if petitioner complies with this Ordinance.
- (c) Description of the relief requested.

- (d) Period of time for which the variance is sought.
- (e) Alternative measures the petitioner is taking or proposes to take to meet the intent of this Plan and the compliance date.
- (f) Other pertinent information.

Variances granted by the Board of Directors shall be subject to the following conditions, unless waived or modified by the Board of Directors or its designee:

- (a) Variances granted shall include a timetable for compliance.
- (b) Variances granted shall expire when The Plan is no longer in effect, unless the petitioner has failed to meet specified requirements.

No variance shall be retroactive or otherwise justify any violation of this Plan occurring prior to the issuance of the variance.

Section XII: Severability

It is hereby declared to be the intention of the Brazosport Water Authority Board of Directors that the sections, paragraphs, sentences, clauses, and phrases of this Plan are severable and, if any phrase, clause, sentence, paragraph, or section of this Plan shall be declared unconstitutional by the valid judgment or decree of any court of competent jurisdiction, such unconstitutionality shall not affect any of the remaining phrases, clauses, sentences, paragraphs, and sections of this Plan, since the same would not have been enacted by the Brazosport Water Authority Board of Directors without the incorporation into this Plan of any such unconstitutional phrase, clause, sentence, paragraph, or section.